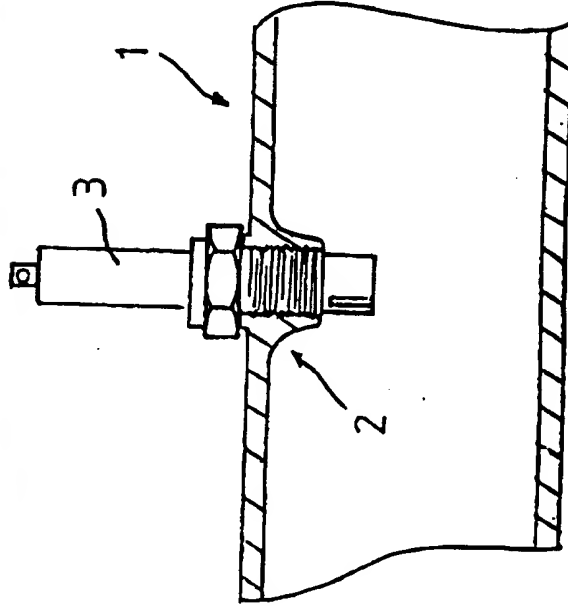


1998-557604/47

REGIE NAT USINES RENAULT

WO-9845584-A1

IC-engine exhaust pipe having fitting for gas analysis sensor - includes conduit through which exhaust gases flow out, and also including housing for mounting measurement sensor e.g. oxygen probe, with housing formed by hole extended by insert produced directly through conduit



USE: Fitting sensor to analyse exhaust gases after catalytic conversion.

ADVANTAGE: Simple and economical hole-making without any welding needed.

ABSTRACT: The exhaust pipe (1) has a hole (2) in it for fitting a sensor such as an oxygen probe (3). The hole is made in the wall of the exhaust pipe by flow-piercing, using a tool applied with a speed and force which melts the metal round it and forms a bush inside the pipe which can then be tapped with a thread for the sensor. The wall thickness of the exhaust pipe is between 1 and 3 mm, and it is made from a non-oxidising alloy.

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